

July 2015

## Greeley County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 8 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Greeley County economy.<sup>1</sup> These 8 sectors have a total direct output of approximately \$122 million and support 306.9 jobs in Greeley County. Running the model for all 8 sectors simultaneously produces the following results:

**Agriculture Contribution in Greeley County**

Impact Type <sup>2</sup>	Employment	% of Total Employment	Total Value Added <sup>3</sup>	% of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	% of Gross Regional Product
Direct Effect	306.9	22%	\$30,545,348	46%	\$121,618,975	182%
Indirect Effect	178.6	13%	\$4,973,199	7%	\$12,780,009	19%
Induced Effect	51.7	4%	\$2,390,807	4%	\$4,992,252	7%
Total Effect	537.3	38%	\$37,909,354	57%	\$139,391,237	209%

As shown in the above table, agriculture, food, and food processing supports 537.3 jobs, or 38% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$139 million, roughly 209% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 8 agriculture, food, and food processing sectors is approximately \$38 million, or 57% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 57% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:  
[https://implan.com/index.php?option=com\\_content&view=category&id=19](https://implan.com/index.php?option=com_content&view=category&id=19)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

<sup>4</sup> GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

<sup>5</sup> Output = Intermediate Inputs + Value Added

In the top ten by employment, Grain farming is the top employer in the agriculture industry with 110.8 employees. This table also shows the amount of jobs that are created by the agriculture industry in Greeley County.

#### Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Grain farming .....	110.8	\$59,663,930
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming .....	110.3	\$43,980,185
Real estate.....	92.2	\$4,018,954
Animal production, except cattle and poultry and eggs.....	44.0	\$6,861,664
Support activities for agriculture and forestry .....	38.5	\$2,119,053
Dairy cattle and milk production.....	21.2	\$6,060,507
All other crop farming.....	18.2	\$3,561,864
Securities and commodity contracts intermediation and brokerage.....	14.1	\$591,690
Wholesale trade.....	9.7	\$1,877,524
Monetary authorities and depository credit intermediation .....	9.5	\$1,288,332

The Grain farming industry directly contributes approximately \$60 million to Greeley County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

#### Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Grain farming .....	110.8	\$59,663,930
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming .....	110.3	\$43,980,185
Animal production, except cattle and poultry and eggs.....	44.0	\$6,861,664
Dairy cattle and milk production.....	21.2	\$6,060,507
Real estate.....	92.2	\$4,018,954
All other crop farming.....	18.2	\$3,561,864
Support activities for agriculture and forestry .....	38.5	\$2,119,053
Wholesale trade.....	9.7	\$1,877,524
Owner-occupied dwellings .....	0.0	\$1,485,991
Monetary authorities and depository credit intermediation .....	9.5	\$1,288,332

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Greeley County's economy.

[illegible]

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.